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Patent



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Bobovitch et al.
Serial no.: 10/601,471
Filed: June 23, 2003
Title: IMPROVED PROCESS FOR THE MANUFACTURE OF
THERMOPLASTIC SHRINK FILMS
Examiner: Mathieu D. Vargot
Art Unit: 1732

Response and Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

This supplemental response is being submitted in reply to the office action mailed on March 3, 2005 which claims that in the prior response of January 12, 2005 that "a complete listing of all of the claims is not present". The only claims that were not submitted in the last response were the previously withdrawn claims. The withdrawn claims are submitted for the USPTO's review of them.

The remarks begin on page 2, and the claims begin on page 4 of this submission.

Respectfully submitted,

Date: 3/10/05

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

Date 3/10/05 Kevin D. McCarthy [Signature]
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Response

This response is in reply to the office action mailed on December 9, 2004.

In the office action, the examiner states, "Applicant need to add support in the specification for using LDPE copolymers as recited in instant claim 4." Applicant directs the examiner's attention to page 13, lines 9 to 11 which reads as follows: "The raw materials were 68% LDPE 2102 TC32 ex DSM, 30% M205 ex. DEX., 0.5% BP-L and 1.5% of antiblock concentrate." In view of that disclosure it is applicant's opinion there is proper antecedent basis for LDPE in the specification.

The examiner has also rejected the claims as being indefinite. The alleged indefinite portion of the claim is the phrase "for improving processability" of mono- and multi-layer polymer shrink-films. The examiner believes that phrase renders the claims indefinite. The language that is at issue is in the preamble and not found in the body of the claims. Notwithstanding that distinction, we direct the examiner's attention to page 4 line 16 to page 5 line 13 which indicate what "for improving processability" means. That description should assist the examiner understand what is meant by that phrase.

The examiner has also rejected the claims as being unpatentable over Babrowicz et al.'s disclosure set forth in U.S. patent number 5,993,922. In that patent, Babrowicz et al. disclose (at col. 22, line 21 to col. 23, line 27) the following process:

- a) one control film (COMP.BB) [was] cast extruded to produce a substrate.
- b) the substrate was exposed to electron beam irradiation . . .
- c) After irradiation of the substrate, four additional layers were added to the substrate by simultaneous extrusion coating process.

The examiner admits Babrowicz et al. fail to disclose in the above process the use of UV radiation and a photoinitiator. To address that deficiency, the examiner reverts to another section of Babrowicz et al.'s patent that discloses the use of a photoinitiator and UV radiation to enhance cross-linking. The examiner then suggests merely substituting the irradiation step with the photoinitiator and UV radiation step.

That mere substitution fails to disclose the instant invention. That process is clearly set forth in the following claim:

1. A process for improving processability of mono- and multi-layer polymer shrink-films, comprising
adding a photoinitiator to a polymeric composition of which said monolayer film or at least one layer of said multilayer film is made, wherein said polymeric composition does not include polymer cross-linking enhancers,
extruding said composition,
illuminating said extruded composition with ultraviolet radiation, to induce cross-linking within said layer or layers of the film, the amount of said photoinitiator and the intensity and duration of said illumination being such as to provide a gel content below 10%, and
submitting said composition to an orientation treatment.

Notice that the photoinitiator must be applied prior to extruding the polymer in the claims. Using the examiner's suggestion, the photoinitiator is only to be applied after the extrusion process. That insertion of the photoinitiator is a significant difference that Babrowicz et al. fail to disclose, teach or suggest to obtain the desired and claimed results.

It is respectfully submitted that these claims are in condition for allowance and such allowance is respectfully requested.